

PREDICTING SAFETY BELIEFS IN SPORTS: THE ROLE OF RISK PERCEPTION, SAFETY ATTITUDES AND SUPPORT AMONG FOOTBALL PLAYERS

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ABSTRACT

Sports safety attitudes and beliefs play a crucial role in fostering a secure environment for athletes, influencing decision-making, problem-solving strategies, and overall safety culture. This study investigates the relationship between risk perception, safety attitudes, sources of support and types of support on the importance of safety beliefs among PDRM football players participating in the Inspector General of Police (IGP) Cup Football Championship. A quantitative, cross-sectional research design was employed and data were collected through a structured questionnaire distributed to 138 participants. The questionnaire included sections on risk perception, safety attitudes, sources of support, types of support and safety beliefs, with responses analyzed using multiple linear regression. The results indicate that risk perception ($B = 0.301, p < 0.001$), source of support ($B = 0.149, p = 0.003$), and type of support ($B = 0.232, p < 0.001$) significantly positively predict safety beliefs, while safety attitudes showed a negative association ($B = -0.384, p < 0.001$). The assumptions of linearity, normality, homoscedasticity and multicollinearity were tested to ensure the validity of the regression model. Risk perception emerged as the strongest predictor, highlighting the critical influence of hazard awareness on safety beliefs. These findings portray that PDRM officers have certain beliefs and perceptions concerning injury risk. This new information could be used to inform future safety initiatives in this important setting for health, physical activity and sports among amateur football players. These findings highlight the need for targeted safety education programs to align attitudes with actual safety behaviors. Future research should explore longitudinal assessments of safety interventions, the role of organizational safety culture and the psychological factors influencing risk perception.

Keywords: *Sport Safety, Safety Attitude, Safety Belief, Safety Culture, Sport Injuries, PDRM*

INTRODUCTION

Sports are an integral part of society, contributing significantly to physical health, mental well-being, and social cohesion. However, participation in sports, especially high-contact sports such as football, carries inherent risks of injury. Ensuring the safety of athletes has become a paramount concern for sports organizations, coaches, and health professionals. Effective sport safety management is crucial for minimizing these risks and promoting a safe playing environment (Mašić & Begović 2023). This research focuses on understanding the safety attitudes and beliefs among the Police Royal Malaysia (PDRM) football players, a team known for its rigorous training and competitive spirit. By examining these factors, the study aims to shed light on the current state of sport safety management within the team and provide actionable insights for enhancing safety practices.

Physical and leisure activities play an important role in the police officers well-being (Vuković, M. et. Al, 2020). The work of a police officer frequently entails sudden, high-intensity periods of physical effort and potentially hazardous situations. Difficult schedules, long working hours and attendance at crime scenes, which can lead to inadequate sleep, metabolic disorders, cardiac irregularities and other health issues (Garbarino & Magnavita, 2015; Gu et al., 2012). Police officers frequently face physical obstacles like foot chases, suspect arrests, and life-or-death scenarios, so they must always maintain good physical condition. Due to these physically demanding duties, achieving a sufficient level of physical fitness is essential for them to carry out their duties effectively. Moreover, compared to the broader population, police should be physically fit (Nasriah Na et al., 2017).

In Malaysia, PDRM regularly participates in numerous sporting events, including football. While football provides several physical and social benefits, it is critical to analyze PDRM football players' safety attitude and safety beliefs in order to boost their well-being and optimize performance. In football games, fierce impact frequently results in sports skin injuries, ankle sprains, ligament strains, and fractures (Zhang & Wang, 2023). In order to ensure that police officers keep their obligation to protect and serve even in recreational situations, it is crucial to address the issue of police safety attitudes during football games. Understanding their safety perceptions can lead to the development of tailored interventions and safety measures, ultimately improving their on- and off-field experience.

In recent years, there has been growing awareness of the importance of safety in sports. Various studies have highlighted the role of risk perception, safety attitudes and support systems in shaping athletes' behaviors and experiences (Cardoso et. al, 2022). Risk perception refers to the players' awareness and understanding of the potential dangers associated with their sport (Zahir, 2020). This awareness is influenced by their personal experiences, the information provided by coaches and medical staff and the overall safety culture within the team.

Safety attitudes, on the other hand, reflect the players' beliefs and feelings towards safety measures and their implementation (Shamlaye, 2020). Positive safety attitudes are associated with higher compliance with safety protocols and a greater commitment to preventive measures. However, these attitudes can be influenced by various factors, including the perceived effectiveness of the safety measures, the level of support from the organization and the players' own experiences and beliefs (Jo et. al, 2023).

Support systems play a crucial role in maintaining athletes' safety and well-being. These systems include medical support, psychological support, and the overall organizational support provided to the players. Effective support systems ensure that players have access to the necessary resources and assistance when dealing with injuries or safety concerns (Hosseinpour & Torshizi 2020). They also contribute to a positive safety culture within the team, encouraging players to prioritize safety and adhere to established protocols.

There is a lack of published studies relating to safety attitudes and safety beliefs of sports participants. When such studies have been reported, they have typically focussed on attitudes towards protective equipment such as face guards in hockey or baseball, eye guards for squash players, helmets for cyclists or rugby players, or protective equipment for in-line skaters (Emery & Tyreman 2009). To the author's knowledge this is the first research to explore safety attitudes and beliefs among PDRM football players. Because these attitudes and beliefs can influence risk taking behaviour, it is necessary to understand these beliefs and how they increase the risk factors before injury prevention strategies can be developed.

This study describes the self-reported safety attitudes and beliefs of PDRM football players' to help shape injury prevention programs for these players. Attitudes towards safety would be influenced by factors such as being selected for the competition, perceived injury risk (for example the "tough" and "masculine invincibility" image perpetuated in the popular press) and social support mechanisms (Buggy, 2020). Because of the different levels of rank in PDRM organisation, it was also considered that the perceived level of safety and social support in the sporting context would differ across these settings (Caroline, 2011). This study aims to help redress this knowledge gap by describing important aspects of the safety attitudes of sport participants. It is intended that this new information could be used to inform future safety initiatives in this important setting for health, physical activity and sports.

METHODOLOGY

This study utilizes a quantitative cross-sectional research design to examine the relationship between risk perception, safety attitudes, sources and types of support, towards the importance of safety beliefs among PDRM football players. This design allows the collection of numerical data through a structured questionnaire, facilitating the examination of predictive relationships among variables through multiple linear regression.

Participants and Sampling Technique

The target population consisted of PDRM personnel, specifically football players, and the information was collected during Inspector General of Police (IGP) Cup Football Championship 2023 held in Kuala Lumpur. Participants were chosen through purposive and convenience sampling methods to guarantee the involvement of individuals with relevant experience in safety practices within a sports context. A purposive sampling approach enabled the deliberate selection of PDRM personnel according to their expertise and engagement in safety practices, while convenience sampling supported practical recruitment efforts. A total of 150 police officers from PDRM were involved in this study; however, only 136 participated.

Instrumentation

The survey instrument was based on the Australian safety attitudes and belief questionnaire survey previously developed and validated by Finch and colleagues (Finch et al. 2011). This comprehensive structured questionnaire based on the principles of the Theory of Reasoned Action consisting of 25 items. The questionnaire were divided into 5 sections consisting of (a) Demographic profile, (b) Risk perception, (c) Safety attitudes, (d) Source of support, (e) Types of support and (f) The importance of safety belief. Section (b) – (f) were assessed using a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree).

Data Collection and Data Analysis

The survey was conducted during Inspector General of Police (IGP) Cup Football Championship 2023 held in Equestrian Park Putrajaya from 11- 16 July 2023. All PDRM footballer were approached as they entered or prepared to depart from the facility. Participation was voluntary, with informed consent obtained prior data collection. Participants were be assured of anonymity and confidentiality, with data stored securely and used solely for research purposes. A plain language statement was provided with every administered survey and consent was implied with the respondent's completion of the survey. Ethics approval was obtained from UiTM Research Ethics Committees.

The collected data was analyzed using SPSS Version 27.0 Descriptive statistics summarized the demographic characteristics and scale responses. Multiple linear regression analysis was conducted to assess the predictive relationship between risk perception, safety attitudes, support variables and safety beliefs. The assumptions of linearity, normality, homoscedasticity and multicollinearity were tested to ensure the validity of the regression model.

RESULTS AND DISCUSSION

Table 1 showed the demographic variables of the participants. A total of 150 PDRM officers involved in the Inspector General of Police (IGP) Cup Football Championship were chosen for participation in the data collection process. Only 136 students participated in this survey, resulting in a response rate of 90.67%, with ranks varying from constable to superintendent. The age of the respondents varies between 21 and 40 years. The majority are within the age range of 21 to 30 years.

Table 1 : Demographic Variables

Demographic Variables	Category	(%)
Age	21 – 30	64.8
	31 – 40	35.2
Level of education	SPM	38.8
	STPM	9.5
	Diploma	26.0
	Degree	22.0
	Master	3.7
Race	Malay	83.9
	Indian	13.2
	Others	2.9
Work status in PDRM	Assistant Superintendent	0.7
	Constable	43.6
	Corporal	40
	Inspector	8.8
	Lance Corporal	11.7
	Lance Corporal	0.7
	Sergeant	17.6
	Sergeant Major	0.7
	Superintendent	0.7
	Superintendent Assistance	0.7
Marital status	Single	57.5
	Married	42.5
Total		100

A total of 38.8% of SPM officers and 26% of Diploma PDRM officers participated in this survey. Of the total, 83.9% of the officers identify as Malay. A significant portion of the officers in PDRM are constables, with 40% originating from the rank of corporal and 17.6% from the rank of sergeant. A majority of the officers, specifically 57.5%, are single, while 42.5% are married.

Table 2 showed the descriptive statistics for the questionnaire items summarizing the mean scores and standard deviation for each item across the sections. Participants reported relatively high risk perception

scores with means ranging from 3.82 to 4.64, with '*Safety is an important aspect of sports competition*' reflecting strong agreement of high perception of risk. The mean scores for safety attitudes varied from 2.73 to 4.38, with '*I believe that players should be fully rehabilitated before playing football again after they have suffered an injury*' suggesting strong positive safety attitudes.

Table 2 : Descriptive Statistics for Questionnaire Items (N = 138)

Section	Item	Mean	SD
a) Risk perception	Safety is an important aspect of sports competition.	4.64	0.740
	Being injured affects my level of enjoyment in sports competition.	4.23	1.040
	I think there is a significant risk of injury in participating in competition-level sports.	3.82	1.110
b) Safety attitudes	I believe that it is safe to play with injuries.	2.74	1.532
	I am willing to play with injuries.	2.73	1.350
	I would risk playing with an injury if I thought my chances of being selected for the National Police Chief Trophy would be affected if I didn't play.	2.95	1.364
	Players who continue to play with injuries are likely to suffer problems later in life.	4.13	0.953
	I believe that players should be fully rehabilitated before playing football again after they have suffered an injury.	4.38	0.884
	I admire PDRM players who continue to play when they are injured.	3.91	1.074
	The media like television, newspapers and radio glorifies PDRM players when they continue to play when they are injured.	3.52	1.151
c) Source of support	The coach supports me when I am injured.	3.57	1.307
	The administration of the club supports me when I am injured.	3.90	1.014
	My teammates support me when I am injured.	3.99	1.068
	My family supports me when I am injured.	3.98	1.183
d) Types of support	PRDM Football Association provides me with first aid support when I am injured.	4.29	0.974
	PRDM Football Association provides me with medical support when I am injured.	4.20	0.946
	PRDM Football Association assists me with my rehabilitation when I am injured.	4.17	0.937
e) Importance of safety belief	Safety is my number one priority when participating in sport competition.	4.67	0.607
	I believe that people should adopt the appropriate safety measures for every sport activity they partake in.	4.6	0.782
	I believe that each individual is responsible for their own safety.	4.57	0.846

The mean scores for source of support were moderately high, with means between 3.57 and 3.99. '*My teammates support me when I am injured*' showed the highest perception of support while '*The coach supports me when I am injured*' was the lowest with more variability. Types of support scored consistently high with means ranging from 4.17 to 4.29 and a significantly low standard deviation. Participants rated safety beliefs very highly with means between 4.57 and 4.67. '*Safety is my number one priority when participating in sport competition*' scored the highest with the lowest standard deviation, indicating a strong belief in the importance of safety.

Table 3 presented the model summary based on multiple linear regression. Linear regression assumptions such as normality, heteroscedasticity, linearity and multicollinearity were checked before the final model was finalized. Based on Table 4, risk perception ($B = 0.301$, $SD = 0.040$, $95\%CI = 0.193, 0.350$), source of support ($B = 0.149$, $SD = 0.032$, $95\%CI = 0.032, 0.159$), types of support ($B = 0.232$, $SD = 0.035$, $95\%CI = 0.103, 0.239$) were positively influenced safety beliefs. These predictors indicated that players who perceive higher risk and receive more support tend to hold stronger safety beliefs.

Table 3 : Summary of Regression Coefficients

Variables	Estimate (B)	SD	p-value	95% CI
Constant	3.650	0.232	0.000	(3.195, 4.106)
Risk perception	0.301	0.040	0.000	(0.193, 0.350)
Safety attitudes	-0.384	0.043	0.000	(-0.458, -0.288)
Source of support	0.149	0.032	0.003	(0.032, 0.159)
Type of support	0.232	0.035	0.000	(0.103, 0.239)

Safety attitudes showed a negative effect which suggested that players with strong safety attitudes may already feel confident about their safety practices which reduces the intensity of safety beliefs. Among all the predictor variables, risk perception emerged as the strongest positive predictor which highlighted the importance of risk perception in shaping safety-related attitudes and behaviors.

This counterintuitive finding suggests that while players may outwardly express positive attitudes towards safety, this does not necessarily translate into strong safety beliefs. One possible explanation is that players with positive attitudes towards safety measures may feel overly secure and therefore underestimate the actual risks, leading to a decrease in safety beliefs (Jo et al, Lee, 2023). This highlights the need for continuous education and awareness programs to bridge the gap between attitudes and beliefs, ensuring that positive attitudes are accompanied by a genuine commitment to safety.

Table 4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.527 ^a	.277	.270	.505

a. Predictors: (Constant) risk perception, typeofsupport, safety attitudes, sourceofsupport

b. Dependent Variable: safety belief

The R-Square of 0.277 in Table 4 showed the contribution of the combined predictor variables to the variance in the dependent variable (type of support, risk perception, safety attitudes and source of support) predicted 27.7% of the variance in the dependent variable (safety belief).

CONCLUSION

The study's findings reveal a nuanced relationship between risk perception, safety attitudes, support systems and safety beliefs among football players. Notably, while higher risk perception and robust support systems positively influence safety beliefs, strong safety attitudes unexpectedly correlate with diminished safety beliefs. This suggests that players confident in their safety practices may underestimate actual risks, leading to complacency. Supporting these findings, Zech and Wellmann (2017) demonstrated that football players often underestimate injury risks, highlighting the necessity for enhanced risk awareness.

Conversely, a study by Sohail and Ashraf (2022) reported that young athletes with positive safety attitudes also possessed strong safety beliefs, suggesting that when safety attitudes are coupled with proper education, they reinforce safety beliefs. This study's findings align with existing literature emphasizing the importance of social support systems in shaping safety beliefs. (Jimoh, 2024; Finch et.al 2002). The perception of support from teammates and coaches plays a crucial role in fostering a culture of safety. However, disparities in support perception, especially lower support from coaches, may hinder the development of strong safety beliefs. This highlights the need for comprehensive support structures involving all stakeholders to enhance safety practices effectively. these findings underscore the complex interplay between risk perception, safety attitudes, and support systems in shaping athletes' safety beliefs.

The PDRM may establish focused initiatives to improve safety practices by knowing their safety perceptions and concerns, making football a safer and more pleasurable experience for its participants. Furthermore, this research can benefit the larger sports community by assisting other law enforcement agencies and sporting organizations in improving the safety and well-being of their players.

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CONFLICT OF INTREST

This study has no conflicts of interest with any agency or organization that could potentially impact the findings or interpretation. Furthermore, there were no financial resources allocated to support this project.

AUTHORS CONTRIBUTIONS

Maizan Mohd Nor, Cassendra Gilbert, Nur Nadhirah Zulkefli, Syahida Mohd Nazri and Muhammad Faizal Kutip conducted the study, and drafted the manuscript. Agnes Ayang Kenyang was responsible for study design and analysis. Shakir Zuhayri Zairul Rizal and Muhd. Haqiem Amany Massrol Hissham were responsible for data collection. Badar Habib have meticulously reviewed and approved the final manuscript.

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